

ABSTRACT

A method for generating predictions of rocket motor ballistic performance at specific firing temperatures and for generating data profiles for analysis. The method requires generally
5 available specifications for the rocket motor to be tested and test data from one or more test firings at a known temperature. The method is implemented in software form and generates pressure and thrust versus time data at a selected temperature. The method then generates a burnback profile with a correct final web that integrates to the correct final propellant weight as well as a throat area profile and thrust coefficient profile, for the test firing temperature and for
10 the temperature to be predicted..